

REMARKS

Applicant has studied the Office Action dated December 18, 2006 and has made amendments to the claims. Claims 1-29 are pending. Claims 1 and 17 are independent claims. It is submitted that the application is in condition for allowance. Reconsideration and reexamination are respectfully requested.

§ 112 Rejection

The Examiner rejected claims 1-29 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Specifically, the Examiner asserted that the term "high resistance" in claims 1 and 17 is indefinite and questioned whether the "high resistance substrate that is essentially non-conductive" is a dielectric substrate, how high is "high resistance" and of what material the "high resistance substrate" is formed.

It is respectfully noted that dependent claims 2, 14 and 18 of the present invention further disclose possible material from which the substrate may be formed. It respectfully submitted that the substrate need not be disclosed in the independent claims as formed from any specific material in order to be clearly defined since the term high resistance as used in the claims of the present invention is definite in view of the recitation of the term "essentially non-conductive."

It is respectfully submitted that independent claims 1 and 17 are not indefinite and it is respectfully requested that the rejection be withdrawn.

§ 102 Rejections

Claims 1-6, 15-20 and 27-29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Araki et al. ("Araki" U.S. Patent No. 5,400,039). This rejection is respectfully traversed.

It is respectfully noted that a proper rejection for anticipation under § 102 requires complete identity of invention. The claimed invention, including each element thereof as recited in the claims, must be disclosed or embodied, either expressly or inherently, in a single reference. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565,

1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1369, 21 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1991).

It is respectfully noted that the Examiner asserts, at paragraph 5 on page 3 of the Office action, that Araki discloses "the antenna 23-25, the low noise amplifier 31, and the phase shifter 26 are formed on one high resistance substrate 21" and that the "high resistance substrate is preferably selected among a high resistance silicon substrate, a high resistance ceramic substrate, and a printed circuit board (PCB)." Applicant respectfully disagrees with the Examiner's interpretation of Araki.

It is respectfully noted that reference number "21" in Araki is disclosed as the "antenna portion" and reference number "16" is disclosed as "the substrate." See Araki at col. 6, ll 31-39, for example. Therefore, applicant respectfully assumes that the Examiner meant to assert that "the substrate 16" disclosed in Araki is analogous to the high resistance substrate recited in independent claims 1 and 17 of the present invention.

It is respectfully noted that Araki discloses a "substrate 16 constituted of three dielectric layers 4, 6 and 14 and four conductive layers 1, 3, 12 and 17. Col. 6, ll. 33-36. It is further respectfully noted that Araki discloses that the "substrate 16" is fabricated with "conductive" layers. Col. 9, ll. 60-68, col. 10, ll. 38-45 and FIGS. 7 (step 103) and 8 (step 203).

It is respectfully submitted that the "substrate 16" disclosed in Araki, which is fabricated with "conductive layers," is not a high resistance substrate that is essentially non-conductive, as recited in independent claims 1 and 17 of the present invention. Furthermore, upon a thorough reading of Araki, Applicant is unable to identify any disclosure in Araki that any "high resistance substrate is preferably selected among a high resistance silicon substrate, a high resistance ceramic substrate, and a printed circuit board (PCB)," as recited in claims 2 and 18. Therefore, it is respectfully submitted that the Examiner has failed to establish the requisite "complete identity of invention" with respect to at least independent claims 1 and 17 as well as dependent claims 2 and 18.

It is respectfully asserted that independent claims 1 and 17 are allowable over the cited reference. It is further respectfully asserted that claims 2-6, 15 and 16, which depend from claim 1, and claims 18-20 and 27-29, which depend from claim 17, also are allowable over the cited reference.

§ 103 Rejections

Claim 7-14 and 21-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Araki in view of Ohata et al. ("Ohata" U.S. Pat. No. 6,320,543). This rejection is respectfully traversed.

It is respectfully noted that the Federal Circuit has provided that an Examiner must establish a case of prima facie obviousness. Otherwise the rejection is incorrect and must be overturned. As the court recently stated in In re Rijkaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993):

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. 'A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.' If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned." (citations omitted.)

It is respectfully submitted that Ohata fails to cure the deficiencies of Araki with respect to a high resistance substrate that is essentially non-conductive. Upon a thorough reading, Applicant is unable to identify any disclosure in Ohata of a high resistance substrate that is essentially non-conductive.

It is further respectfully submitted that, notwithstanding that Ohata fails to cure the deficiencies of Araki with respect to high resistance substrate that is essentially non-conductive, any modification of the Araki invention by the teachings of Ohata would not produce the present invention. It is respectfully noted that independent claims 1 and 17 of the present invention also recite that the antenna, the low noise amplifier, and the phase shifter are formed on one high resistance substrate that is essentially non-conductive.

It is respectfully submitted that the disclosure in Ohata is of two separate substrates, with the antenna formed on one substrate and the low noise amplifier and the phase shifter form on a separate substrate. The Examiners attention is first respectfully directed to col. 1, ll. 18-28 and FIG. 7, which disclose an "integrated circuit (MMIC) 72" and a separate "antenna substrate 73" which are "connected to each other by a bonding wire. The Examiners attention is next respectfully directed to col. 1, ll. 28-41 and FIG. 8, which disclose an "MMIC substrate 81" and a separate "antenna substrate 82." The Examiners attention is lastly respectfully directed to col. 3, line 26, to col. 5, line 65 and FIGS. 1A-C, 2A-C and 3A-C, which disclose a "first dielectric layer 5 [that] serves as a dielectric substrate for ... the antenna patch 3" and a "second dielectric layer 7 is provided with a monolithic microwave integrated circuit (MMIC) 1" and further disclose "the dielectric layers may be glass ceramic substrates" and "the two of the glass ceramic substrates."

It is respectfully submitted that, given the disclosure in Ohata of an antenna formed on one substrate and a low noise amplifier and the phase shifter formed on a separate substrate, modification of the Araki invention by the teachings of Ohata would not result in the antenna, the low noise amplifier, and the phase shifter being formed on one high resistance substrate. Therefore, it is respectfully asserted that independent claims 1 and 17 are allowable over the cited combination of references. It is further respectfully asserted that claims 7-14, which depend from claim 1, and claims 21-26, which depend from claim 17, also are allowable over the cited combination of references.

CONCLUSION

In light of the above remarks, Applicant submits that claims 1-29 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

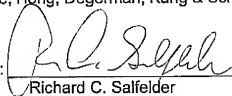
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

Lee, Hong, Degerman, Kang & Schmadeka

Date: March 13, 2007

By:

A handwritten signature in dark ink, appearing to read "R. C. Salfelder", is written over a horizontal line.

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